

REMARKS

The Examiner objected to the drawings under 37 CFR 1.83(a) for failing to show every feature of the invention recited in the claims. Based upon this belief, the Examiner noted that “determining a pixel coordinate remainder value associated with each of the pixel coordinate value” must be shown in the drawings as presented. Although the Applicant believes that the drawings as originally filed do show the claimed limitations, the drawings have been modified to more clearly point out the claimed limitations.

The Examiner also rejected under 35 U.S.C. 112 first paragraph and second paragraph claims 1 – 14 for failing to comply with the written description requirement and as being indefinite. In particular, with regards to the 35 U.S.C. 112, first paragraph rejection, the Examiner asserts that the “Specification does not show how the **true** H_{total} could be defined in order to define coordinate remainder value and a maximum gap value of the pixel coordinate remainder values associated with a **true** horizontal resolution” (boldface added by Examiner) see Office Action at page 3. Therefore, it would appear that the Examiner believes that the true H_{total} must be known in order to determine the remainder values and the gap values. On the contrary, the true H_{total} is **NOT** known at the onset of the inventive method but is only stipulated as being a known value in a number of examples presented in the specification for the edification of the reader only and does not suggest that the true H_{total} must be known in advance in order to practice the invention.

In particular, the specification at page 18 line 20 to page 19 line 11 states:

“In order to predict a true H_{total} , any two preliminary H_{total} values (typically referred to as H_{total1} and H_{total2}) are chosen. These preliminary H_{total} values can be selected in any manner deemed appropriate for the situation at hand. Once the preliminary H_{total} values are selected, a horizontal pixel co-ordinate for each found feature is measured for each preliminary H_{total} values, typically resulting in an integral pixel co-ordinate value plus a remainder value indicating that the associated preliminary H_{total} value is not the true H_{total} . ”

Here, two preliminary H_{total} values are selected and based upon the selected H_{total} values, the horizontal pixel coordinate values for a number of found features are measured. The non-integer portion of the measured horizontal pixel coordinate value is the remainder value (a non-zero value indicating that the associated preliminary H_{total} value is not the true H_{total} value).

An example follows in the specification at the paragraph starting on page 20 line 18, which states:

“For example, assume that for a pixel A associated with a feature Y (and located at $C_x = 500$ for true $H_{total} = 1344$),

<u>H_{total}</u>	<u>Measured Co-ordinate of pixel A</u>
$H_{total1} = 1340$	$C_{A1} = 498.51$
$H_{total2} = 1350$	$C_{A2} = 502.23$

Using this approach, each measured co-ordinate value has a remainder indicating that the associated H_{total} is not the true H_{total} .”

In the above example, the **preliminary** H_{total} values have been selected as 1340 and 1350 resulting in measured pixel coordinate values of 498.51 and 502.23, respectively. It should be noted that the **measured** pixel coordinates values result “in an integral pixel co-ordinate value” (i.e., 498 and 502) plus “a remainder value” (i.e., .51 and .23 respectively) indicating that the associated preliminary H_{total} values (i.e., 1340 and 1350) are not the true H_{total} value. **It should be reiterated for clarity that true H_{total} is initially unknown and is only stipulated in this example as being 1344 for illustration purposes only.**

Furthermore, (again using 1344 as an example of a value that would initially be unknown), the specification further states:

“the remainders of the predicted co-ordinates track together (i.e., both are negative with respect to the true co-ordinate) whereas when the H_{total} is not correct (as in the case of $H_{total} = 1345$), the remainders of the predicted co-ordinates do not track and are, therefore, more random in nature. **Therefore, as the H_{total} converges on**

the true H_{total} , the observed randomness of the remainder space is reduced and the gap value β increases.”

As used in the example above, the true H_{total} is not known in advance but is only used to illustrate the point that as the true H_{total} is approached, the observed randomness of the remainders (described as the remainder space 1500) is reduced resulting in an increased gap value β (shown in Figs. 14A and 14B).

Therefore, as explained above, it is not necessary to know the true H_{total} value at the onset of the inventive method since the true H_{total} value is determined only after an iteration process that starts with preliminary H_{total} values and a corresponding determination of remainder values associated with a horizontal pixel coordinate value for each of a number of found features.

In conclusion, the applicant believes that independent claims 1 - 14 do comply with the written description requirement and respectfully requests that the Examiner withdraw the 35 U.S.C. 112 first paragraph rejection thereof.

Along the same lines, the Applicant believes that claims 1 – 14 do comply with the requirements of 35 U.S.C. 112 second paragraph and respectfully requests that the Examiner withdraw the 35 U.S.C. 112 second paragraph rejection thereof.

In view of the foregoing, it is respectfully submitted that all pending claims are allowable. Should the Examiner believe that a further telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



Michael J. Ferrazano
Reg. No. 44,105

P.O. Box 778
Berkeley, CA 94704-0778
(650) 961-8300